Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

For Streams with Aquatic Habitat Loss that are Listed for Sediment

Waterbody Segment at a Glance:

Location: Streams in Northern and West Central Missouri and in the Mississippi Embayment of Southeast Missouri and the Missouri and Mississippi Rivers.

Impairment: In 1998 the Department of Natural Resources listed 38 streams with habitat impairment due to agricultural nonpoint source problems. Twelve of them were delisted because new data showed they were higher quality reference streams, not impaired by sediment. One of them was retained on the list for "unknown" pollutants. The other 25 of them appear on the 2002 US EPA 303(d) list for Missouri as being impaired by "sediment".

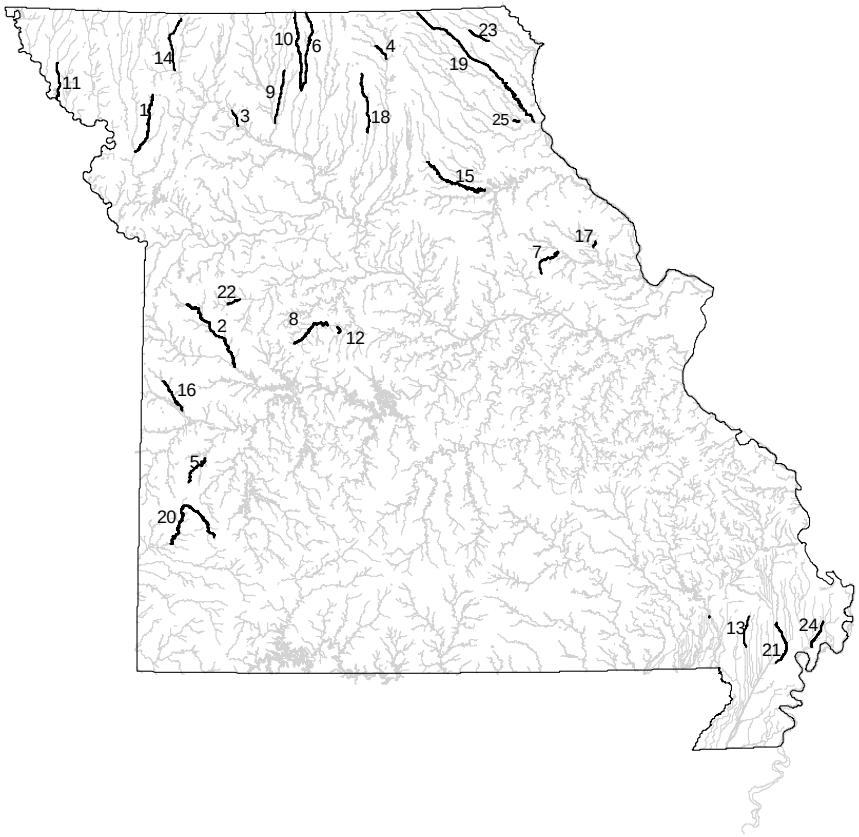
Description of the Problem

All of these waters, as per Missouri Water Quality Standards, must provide a suitable home for aquatic life. A combination of natural geology and land use in the prairie portions of the state and the Mississippi Embayment is believed to have reduced the amount and impaired the quality of aquatic habitat. The major problems are excessive rates of sediment deposition due to streambank erosion and sheet erosion from agricultural lands, loss of stream length and loss of stream channel heterogeneity due to channelization, and changes in basin hydrology that have increased flood flows and prolonged low flow conditions. Loss of tree cover in riparian zones has caused elevated water temperatures in summer and a reduction in woody debris, a critical aquatic habitat component in prairie streams. The most compelling evidence of loss or impairment of aquatic habitat is the historical change in distribution of fishes in Missouri. Many species of fish no longer appear in portions of the state where they once lived.

The department proposed changing the listing of "sediment" to "habitat loss." This change was proposed because sediment is often an important, but certainly not the only, pollutant or condition causing degradation of aquatic habitat in these streams. With this proposed change, other problems such as channelization, alteration of streambanks and riparian zones, and alteration of normal flow regimes would be included as conditions contributing to impairment. The US Environmental Protection Agency denied this change because habitat loss is "pollution", not a specific "pollutant" that can be measured and calculated. This is necessary because a TMDL (Total Maximum Daily Load) is a numeric calculation.

The department is developing a sediment protocol to determine if sediment is actually the pollutant in these streams and a standard way to measure sediment.

Missouri Streams with Loss of Habitat due to Agricultural Non-Point Source Pollution



#	Waterbody	County (lower section)	Miles affected		#	Waterbody	County (lower section)	Miles affected
1	3rd Fork Platte River	Buchanan	31.5		14	M. Fork Grand River	Gentry	25
2	Big Creek	Henry	49		15	M. Fork Salt River	Monroe	49
3	Big Muddy Creek	Daviess	8		16	Miami Creek	Bates	18
4	Blackbird Creek	Adair	10.5		17	Mill Creek	Lincoln	4
5	Clear Creek	Vernon	18		18	Mussel Fork	Macon	29
6	E. Fork Medicine Cr.	Grundy	36		19	N. Fabius River	Marion	82
7	Elkhorn Creek	Montgomery	19		20	N. Fork Spring River	Jasper	51.5
8	Flat Creek	Pettis	20		21	Old Channel Little R.	New Madrid	20
9	Honey Creek	Livingston	23		22	S. Fork Blackwater R.	Johnson	5
10	Little Medicine Creek	Grundy	40		23	S. Wyaconda River	Clark	9
11	Little Tarkio Creek	Holt	17.5		24	Spillway Ditch	New Madrid	13.5
12	Lake Creek	Pettis	5		25	Troublesome Creek	Marion	3.5
13	Lateral #2 Main Ditch	Stoddard	11.5					

For more information call or write:

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